

### REMARKS

Claims 1-10, 13-15, 18, 20-25, 28 and 32 are pending in this application. Claims 1-10, 13-15, 18, 20-25, 28 and 32 are currently under consideration, while claims 27, 29-31 and 33-45 have been withdrawn from consideration. Claims 1, 5-10, 13-14, 18-25, 28 and 32 stand rejected. Claims 2-4 and 15 are objected to.

Upon entry of this amendment, claims 1, 10, 18 and 32 have been amended; claims 2, 11-12, 16-17, 19, 26-27, 29-31 and 33-45 have been cancelled; and claims 46-49 have been added. Therefore, after entry of this amendment, claims 1, 3-10, 13-15, 18, 20-25, 28, 32 and 46-49 will be pending.

Support for the amendments to claims 1 and 18 can be found in the original claims and throughout the specification. The amendments to claims 10 and 32 were made for grammatical reasons. Support for new claims 46-49 can be found in the original claims and throughout the specification. Therefore, no new matter has been added by any of the amendments or by the addition of new claims.

### Information Disclosure Statement

The examiner stated in the previous Office Action, which had a mailing date of March 11, 2005, that references 7-25 and 30 from applicants' Information Disclosure Statement that was submitted on November 24, 2004 have not been considered.

Applicants submit herewith those references, along with a Supplemental Information Disclosure Statement, so that the references will be considered.

Rejections under 35 U.S.C. § 112, first paragraph

Claims 1, 5-10, 13-14, 18-25, 28 and 32 stand rejected under 35 U.S.C. § 112, 1<sup>st</sup> paragraph, for lack of enablement and for failing to comply with the written description requirement.

**Comprising:**

The examiner stated that claim 1 is considered open and encompasses an amphiregulin sequence to any amino acid sequences comprising SEQ ID NO: 1, which includes peptides of any lengths.

In order to expedite prosecution of the instant application, applicants have amended claims 1 and 18 to recite the phrase “consists essentially of” rather than “comprises” in reference to SEQ ID NO: 1. Applicants believe that amended claims 1 and 18, and the claims that depend therefrom, address the examiner’s concerns.

**Combination of heavy and light chain:**

The examiner stated that claim 1 does not recite a combination of heavy and light chains that are required for antigen binding.

In order to expedite prosecution of the instant application, applicants have amended claims 1 and 18 to recite a combination of heavy and light chains. Applicants believe that amended claims 1 and 18, and the claims that depend therefrom, address the examiner’s concerns.

**Percent Identity:**

The examiner stated on page 4 of the previous Office Action, which has a mailing date of March 11, 2005, that the specification provides insufficient guidance as to how the skilled artisan would make and use the percent identity to sequences in the instant claims.

Applicants disagree.

Claim 10 is the only pending claim that recites the term “% identity”. Claim 10, as amended, recites a chimeric, humanized or human antibody comprising a heavy chain variable region having an amino acid sequence of at least 95% identity to a sequence selected from the group consisting of SEQ ID NOs: 2, 4 and 12, and a light chain variable region having an amino acid sequence of at least 95% identity to a sequence selected from the group consisting of SEQ ID NOs: 3, 5 and 14.

Applicants believe that the specification provides sufficient guidance for a person having ordinary skill in the art to make and use antibodies comprising heavy and light chain variable regions of at least 95% identity to SEQ ID NOs: 2, 3, 4, 5, 12 and 14. Figure 1 depicts SEQ ID NOs: 2-5, and specifically identifies the CDRs of each sequence. Figures 10 and 11 depict SEQ ID NOs: 12 and 14, respectively, and specifically identify the CDRs of each sequence. In addition, Figures 10 and 11 identify amino acid residues in the framework regions that are predicted to contact the CDR sequences, along with residues in the framework regions that were substituted to reduce potential immunogenicity. These areas of the heavy and light chain variable regions are further described on page 43, lines 15-23 of applicants’ specification.

Therefore, contrary to the examiner’s assertion, applicants believe that the specification teaches the amino acid residues of the heavy and light chain variable regions that are both essential and non-essential to antigen binding, along with the lengths of each CDR sequence.

Accordingly, applicants believe that, based upon these teachings, a person having ordinary skill in the art would generate sequences having the requisite 95% identity by altering amino acid residues of SEQ ID NOs: 2-5, 12 and 14 in regions other than the CDRs and would alter residues in the framework regions that were not identified as contacting the CDR sequences.

As a result, applicants believe that heavy and light chain variable region sequences having the requisite at least 95% identity are both described in and enabled by the specification.

Applicants believe that the above amendments and remarks have addressed the examiner's concerns. Applicants also believe that the claims, as amended, are enabled by the specification and are adequately described in the specification. Accordingly, withdrawal of the rejections under 35 U.S.C. § 112, 1<sup>st</sup> paragraph, is respectfully requested.

**New claims:**

Applicants believe that new claims 46-49 are free of the art, and are adequately described and enabled by the specification. In the Office Action having a mailing date of March 11, 2005, the examiner stated, on page 5, that "Applicant is in possession of an antibody to a polypeptide consisting of SEQ ID NO: 1; . . ." New claim 46 corresponds to this statement. Also, on page 3 of the present Office Action, the examiner outlined three claims directed to specific antibodies that appear to be free of the art. New claims 47-49 are directed to those specific antibodies.

### CONCLUSION

Applicants submit that the claims of the present invention are patentable. In view of the foregoing, applicants respectfully submit that the subject application is in condition for allowance. Accordingly, reconsideration of the rejections and allowance of the claims are earnestly solicited.

If the undersigned can be of assistance to the examiner in addressing issues to advance the application to allowance, please contact the undersigned at the number set forth below.

Respectfully submitted,



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Michael Biro  
Reg. No. 46,556

PDL BioPharma, Inc.  
34801 Campus Drive  
Fremont, CA 94555  
Phone: (510) 284-8898  
Fax: (510) 574-1473